

they have, namely abstracts, and hence these are not listed in Form 1449 as patents. Applicants are not submitting the abstracts in lieu of patents, as these patents are not in their possession. Indeed MPEP section 609 does not require applicants to affirmatively obtain more of a particular publication than what applicants have in their possession. Hence, Applicants' disclosure of the abstracts of which they are aware sufficiently complies with the disclosure requirements.

Submitted herewith is a corrected Form 1449 and IDS, the cited publications having been previously supplied to the Examiner. The Examiner's consideration of the Form 1449 submitted herewith is respectfully requested.

### **Claim Rejections**

In the Office Action mailed April 24, 2002, the Examiner rejected claims 1-26 over various prior art references. The rejections, insofar as they may be applied to the claims, are respectfully traversed for the reasons indicated below. Reconsideration of the application and withdrawal of the rejections are respectfully requested.

Claims 1-26 remain in the case. Claims 1-26 have not been amended to overcome the rejection, as they are deemed patentable over the references as applied in the Office Action.

Claims 1 – 26 stand rejected under 35 USC §103(a) over Fields et al., U.S. Patent No. 5,111,391. For the reasons including, inter alia, those discussed below, each of independent claims 1, 25 and 26 is patentable over the applied references. Further, claims dependent from these independent claims are deemed patentable.

### **U.S. Patent 5,111,391, Fields et al.**

U.S. Patent 5,111,391, Fields et al. ("Fields") is directed to "an improved system and method for the creation of staff schedules at remote locations that take into account location specific values and historical data, while simultaneously conforming to corporate policy regarding scheduling standards and labor regulations." (Col. 1, lines 8-14.) The Office Action has deemed the following disclosures to be particularly relevant, which are repeated here for convenience:

"The optimum schedules take into account: the tasks that need to be scheduled and when they

should be scheduled; the skill levels of employees that are available to perform the tasks; the resources available to facilitate tasks; the relationships between tasks; calculations to combine unique location values with unique location historical data and corporate policy to determine the length, start time and positive and negative slide for a task; employee availability by day of the week, and hours of the day, skill level, and priority of seniority levels; and applicable 'state' labor regulations.” (Col. 2, lines 17-28.) “The invention initially assigns employee names to the day with the least total employee availability, followed by the next most restrictive day and so on. Within a given day, employees names are assigned by skill level. Within a given skill level, the available employees on that day that can perform the skill level, will be sorted by their priority and the percentage of their minimum or maximum hours which have been already scheduled. Once all employees of equal skill and priority have reached their minimum requested hours for the week, the employees are sorted by preferences as the percentage of requested maximum hours for a week.” (Col. 6, lines 51-65.) The invention also provides a file that includes employee information such as the employee's name, address, and pay rate. (Col. 6, lines 43-45.)

### **Independent Claim 1 in Contrast to Fields**

Claim 1 stands rejected under 35 USC § 103(a) in view of Fields. This rejection is respectfully traversed, for reasons including the following.

Claim 1(a) of the present invention recites “(a) sorting, in a predetermined order, available resources by last task assignment, a number of tasks performable, rate per task, and cost per hour, and determining at least one queue responsive to said sorting.” To the contrary of the Office Action, column 2, lines 12-35 and column 6, lines 51-65 of Fields do not teach sorting resources by last task assignment, a number of tasks performable, rate per task, and cost per hour. In the cited portions of Fields, Fields appears to teach that optimum schedules should take into account the tasks needed to be scheduled and when they should be scheduled, employee skill level, resources for the tasks, relationship between tasks, certain unique location calculations, employee availability, and labor regulations. However, Fields neither teaches nor suggests that resources may be sorted as claimed.

Claim 1(b) of the present invention recites “(b) normalizing the at least one queue by dividing a current task queue by an average rate of the available resources for each task in the

current task queue.” The Examiner admits that Fields does not teach normalizing. It should also be recognized that Fields does not expressly teach anything about a rate of available resources for a task. Nevertheless, the Examiner reasons using personal knowledge that there is a motivation to combine the allegedly well-known technique of normalizing a queue by an average rate of the available resources for the task in the queue.

With regard to the foregoing, the assertion that normalizing a queue by an average rate of available resources for each task in the queue is a well-known technique is respectfully traversed. It is respectfully submitted that applying a technique of normalizing utilizing an average rate of available resources for tasks in the queue as claimed, is not taught or suggested in the relevant art. The Examiner is respectfully requested to supply a reference to support the entire assertion, or to withdraw the argument.

Moreover, the Examiner leaps from the statement that “dividing each item by the average normalizes the items” to the conclusion that it would be obvious, for example, to divide a task queue by an average rate of available resources for each task in the queue. Assuming arguendo that the art teaches that one may normalize an item, such as a queue, by the average, that does not explain why one would look to the average rate of available resources for each task in the queue as claimed.

Further, if the Examiner maintains this argument, the Examiner is respectfully requested to explain what “average” is taught in the art for used in the allegedly well-known technique of normalizing. The Examiner is respectfully requested to provide a reference supporting this argument, as well. In the absence of the Examiner providing a prior art reference, Applicant requests the Examiner to provide an affidavit detailing why the claimed normalizing step would have been well known under 37 C.F.R. § 1. 104(d)(2).

Finally, the Office Action claims the motivation for combining Fields with the allegedly well-known technique of normalizing at least one queue as claimed, is to normalize task rates “to quickly determine which tasks take a longer amount of time”. To the contrary, Fields already provides the duration of a task (Col. 3, lines 43-44). First, it appears that the Examiner has confused pay “rate” with “rate” per task as claimed; and also argues that this same “rate” somehow consists of “percentage of employee’s time that it takes to work on a particular task”

(Col. 3, lines 29-30). (These are, of course, inconsistent.) “Pay rate” obviously cannot determine how much time a task takes. On the other hand, using Field’s percentage (e.g., 17 % - 100 %) as a rate to determine the length of a task seems inappropriate when Fields provides for an average duration. The inconsistency of the application of these various elements further demonstrates that the application, as claimed, is patentable over Fields. If the Examiner maintains this argument with respect to the motivation for combining, she is respectfully requested to clarify these issues.

Claim 1(c) of the present invention recites “(c) assigning the available resources to at least one task with a predetermined normalized queue subject to at least one task constraint.” As acknowledged in the Office Action, Fields does not teach normalizing and hence has no normalized queue. Consequently, as discussed in detail above, Fields fails to teach or even suggest this recited element.

Applicants have reviewed the other references of record, and do not believe that the other references remedy the deficiencies of the cited reference. Specifically, the art cited by the Examiner does not assign available resources with a predetermined normalized queue subject to at least one task constraint.

For at least these reasons, the combination of features recited in independent claim 1, when interpreted as a whole, is submitted to patentably distinguish over the cited references. The Examiner is respectfully requested to reconsider and withdraw the rejection.

#### **Dependent Claims 2-24 in Contrast to Fields**

With respect to the rejected dependent claims 2-24, Applicants respectfully submit that these claims are not only allowable by virtue of their dependency from independent claim 1, but also because of additional features they recite. Applicants discuss some of the dependent claims below, by way of example. The omission of a claim from the following discussion is not to be construed as an admission that the Office Action is correct.

Claim 2, for example, recites the step of “redetermining the at least one queue after assignment of the available resources,” and “designating the assigned resource unavailable until a predetermined time when the assigned available resource expires.”

Claim 5 recites that “the at least one task constraint includes at least one assignment constraint, and the available resources are assigned to the at least one task until the at least one team assignment constraint is satisfied.” Fields neither teaches nor suggests anything about using a team assignment as a constraint.

Claim 9 recites that “the predetermined normalized queue comprises a largest normalized queue.” Fields neither teaches nor suggests a normalized queue.

Claim 10 also recites normalizing. Fields neither teaches nor suggests normalizing. Further, claim 10 recites that the resource allocation model “includes entities with variable attributes having variable quantities that transform through at least one network of nodes.” Nothing in the cited reference teaches or suggests that the resource allocation model includes a network of nodes. The Office Action specifically refers to Col. 6, lines 51-65; however, this reference simply does not teach or suggest a resource allocation model as claimed and to the contrary seems to suggest very simply the use of files.

Claims 11-16 depend directly or indirectly from claim 10, and are deemed to be allowable for reasons including those discussed above.

Claim 17 recites that the available resources are characterized by certain information, one of which is “projected incoming volume by task and time”. The Office Action cites Col. 7, lines 18-22 as teaching this element. To the contrary, this portion references a value 35 (Fig. 3) “which constitutes a projected *total* business demand distributed by hour.” Hence this and other elements recited in claim 17 fail to be taught or suggested by the cited reference.

Claim 18 recites that the resources are assigned using, inter alia, “number of RX’s processed in each task for each time period”. The Office Action acknowledges that Fields does not explicitly teach volume data including the number of RX’s processed. There is nothing in the reference that would teach or suggest using numbers of RX’s processed. Indeed Fields seems to be addressed to a problem that does not address the number of RX’s, or even items of any kind, processed. The Office Action then theorizes that it would be obvious that the number of tasks must be known, and that volume data would disclose the number of tasks to assign to resources. Assuming arguendo that it would be obvious and/or desirable to know how many tasks there are, that does not lead to the obviousness of the RX’s processed in each task, as claimed. Again, the

Examiner appears to be using personal knowledge to support this rejection. Applicants request the Examiner provide a prior art reference or an affidavit under 37 C.F.R. § 1.104 (d)(2) to support the rejection. In the absence of neither, Applicants request this rejection be withdrawn.

Claim 22 recites that steps (a) through (c) are repeatedly performed until the end of a predetermined time period is reached. The Office Action cites Fields Col. 3, lines 46-67 as teaching that the steps “are repeated until closing time of each store location”. This interpretation is respectfully traversed. For example, Fields states that “certain tasks can only be performed after another task has been completed, but before closing time for that location;” and “During the process of placing a task on a schedule, each group of relations [between tasks and events] are tested and if no relation is violated in that group, the task is placed on the schedule.” In sum, the reference neither teaches nor suggests that steps (a) through (c) are performed until the end of a predetermined time period is reached.

Claim 24 recites that “the work producing system comprises a pharmacy.” Acknowledging that Fields is not directed to a pharmacy, the Office Action argues that “a pharmacy is nothing more than a specialized system (i.e., for distributing pharmaceuticals”. Apparently the Office Action considers the Mrs. Fields’ patent to be specifically useful in a pharmacy, without further reasoning. To the contrary, staffing a pharmacy is somewhat more specialized than simply staffing Fields’ “multi-unit retail locations” (col. 1 line 15). One example of several problems identified in the background of the invention concerns “scheduling to substantially optimally staff pharmacies on a day-to-day basis, and more particularly, to solving scheduling problems where resources perform a varying set of tasks and their individual rates (units/man hours) for each task vary.” Accordingly, the applicants “have determined that the use of such techniques is new to the managed care, health care and/or pharmacy industry” (specification pages 1, 7-8). Hence, it appears that the conclusion that Mrs. Fields’ patent would be useful in a pharmacy is nothing more than an impermissible application of hindsight.

None of these features is taught or suggested by Fields.

#### **Independent Claim 25 in Contrast to Fields**

Claim 25 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Fields. For the

reasons discussed in connection with independent claim 1 and 24, it is respectfully submitted that the claimed invention is patentable over Fields. The Examiner is respectfully requested to withdraw the rejection of claim 25.

#### **Independent Claim 26 in Contrast to Fields**

Claim 26 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Fields. For the reasons discussed in connection with independent claim 1 and 24, it is respectfully submitted that the claimed invention is patentable over Fields. The Examiner is respectfully requested to withdraw the rejection of claim 26.

#### **Summary**

In view of the above, Applicants submit that the combination of features recited in each of claims 1-26 is patentable over the prior art cited by the Examiner when each respective claim is interpreted as a whole.

Applicants respectfully submit that, as described above, the cited prior art does not show or suggest the combination of features recited in the claims. Applicants do not concede that the cited prior art shows any of the elements recited in the claims. However, Applicants have provided specific examples of elements in the claims that are clearly not present in the cited prior art.

Applicants strongly emphasize that one reviewing the prosecution history should not interpret any of the examples Applicants have described herein in connection with distinguishing over the prior art as limiting to those specific features in isolation. Rather, Applicants assert that it is the combination of elements recited in each of the claims, when each claim is interpreted as a whole, that is patentable. Applicants have emphasized certain features in the claims as clearly not present in the cited references, as discussed above. However, Applicants do not concede that other features in the claims are found in the prior art. Rather, for the sake of simplicity, Applicants are providing examples of why each of the claims described above are distinguishable over the cited prior art.

### Conclusion

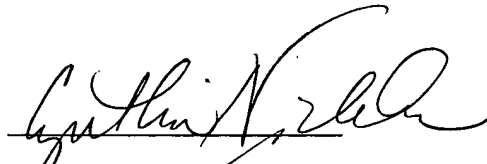
For all the reasons advanced above, Applicants respectfully submit that the rejection of claims 1-26 must be withdrawn. Consequently, issuance of a Notice of Allowance is respectfully requested.

### AUTHORIZATION

The Commissioner is hereby authorized to charge any additional fee that may be required for this Amendment, or credit any overpayment to Deposit Account No. 08-0219.

In the event that an extension of time is required, or which may be required in addition to that requested in a petition for an extension of time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to deposit account no. 08-0219.

Respectfully submitted,

  
Cynthia K. Nicholson

Registration No. 36,880

Date: July 24, 2002  
HALE AND DORR LLP  
1455 Pennsylvania Ave.  
Washington, D.C. 20004  
(202) 942-8482 (telephone)  
(202) 942- 8484 (facsimile)